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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, L.L.P. 1940 DUKE STREET ALEXANDRIA, VA 22314				
EXAMINER				
WHEELER, THURMAN MICHAEL				
ART UNIT		PAPER NUMBER		
1619				
NOTIFICATION DATE		DELIVERY MODE		
01/08/2010		ELECTRONIC		

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary

Application No.

10/585,659

Applicant(s)

BIANCHI ET AL.

Examiner

Thurman Wheeler

Art Unit

1619

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 November 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-14 is/are pending in the application.
- 4a) Of the above claim(s) 10-12 and 14 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB-08)
Paper No(s)/Mail Date 10/06/2008
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Claims 1-14 are pending in instant application: 10585659

Election of Claims

1. Applicants elect with traverse, Group I (Claims 1-9, 13) for examination.

Applicants' REMARKS/ARGUMENTS

Restriction is only proper if the claims of the restricted groups are independent or patentably distinct and there would be a serious burden placed on the Examiner if restriction is not required (MPEP 803). The burden is on the Examiner to provide reasons and/or examples to support any conclusion in regard to patentable distinction (MPEP 803). Moreover, when citing lack of unity of invention in a national stage application, the Examiner has the burden of explaining why each group lacks unity with each other group specifically describing special technical features in each group (MPEP 1893.03(d)). The determination is made on the contents of the claims as interpreted in light of the description and drawings (if any)." Applicants respectfully submit that the Examiner has not provided any indication that the contents of the claims *interpreted in light of the description* was considered in making the assertion of a lack of unity and therefore has not met the burden necessary to support the assertion.

37 C.F.R. 1.475(b) states in pertinent part: "An international or a national stage application containing claims to different categories of invention will be considered to have unity of invention if the claims are drawn only to one of the following combinations of categories: (2) A product and a process of use of said product.

Accordingly, Applicants submit that the Office has failed to meet the burden necessary in order to sustain the requirement for restriction. Applicants therefore request that the requirement for restriction be withdrawn.

Response to Applicants' Remarks/Arguments:

Applicants request that the requirement for restriction be withdrawn is not found persuasive because, as set forth is Election/Restriction Requirement filed on 10/29/2009, **Rule 13.1 of the Patent Cooperation Treaty (PCT) (emphasis added)**, "the international application shall relate to one invention only or to a group of inventions so linked as to form a single general inventive concept." Moreover, as stated in **PCT Rule 13.2 (emphasis added)**, "where a group of inventions is claimed in one and the same international application, the requirement of unity of invention referred to in Rule 13.1 shall be fulfilled only when there is a technical relationship among those inventions involving one or more of the same or corresponding special technical features." Furthermore, Rule 13.2 defines "special technical features" as "those technical features that define a contribution which each of the claimed inventions, considered as a whole, makes over the prior art." As stated in the Lack of Unity filed on 10/29/2009, the special technical feature of Groups I-III (formulations of imidoalkanepercarboxylic acids) is disclosed in USP 5391324 (Reinhardt), such that, instant claims 1-14 do not involve an inventive step.

Thus, claims 1-9, 13: drawn to a product, claims 10-11: drawn to a process of making, and claims 12, and 14: drawn to a process (method) of use, are not linked within the meaning of **PCT**

Rule 13.2 (**emphasis added**) so as to form a single inventive concept, and unity between Groups I-III is broken.

The requirement for Restriction is still deemed proper and is therefore made FINAL.

Claims 10-11, 12, and 14 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to nonelected Groups II and III.

Claims 1-9, and 13 elected for further prosecution.

Foreign Priority

2. Application 10585659, filed 01/03/2007 is a national stage entry of PCT/EP2004/053685, International Filing Date: 12/23/2004 claims foreign priority to MI2004A000004, filed 01/08/2004. Applicant claimed priority to MI2004A000004, in the declaration of instant application. Applicants' claim under 35 USC 119(a)-(d) to obtain the benefit of foreign priority is acknowledged.

The filing date of the foreign priority document is not the effective filing date, although the filing date of the foreign priority document may be used to overcome certain references. See MPEP § 706.02(b) and § 2136.05.

All claims will receive an effective filing date of 12/23/2004.

Specification

3. Misspelled word 'imidialkanepercarboxylic' (should be 'imidoalkanepercarboxylic') on page 6, line 23.

The specification has not been checked to the extent necessary to determine the presence of all possible errors.

Applicants' cooperation is requested in correcting any errors.

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Instant claims 5, 6, and 7 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 contains an improper Markush group. Alternatives can be claimed using Markush language, selected from the group consisting of, but using the transitional phrase consisting

essentially of with the Markush language is improper and renders the metes and bounds of the claim unclear.

Furthermore, the dependent claims 6 and 7 do not remedy the problems of claim 5.

The language of a claim must make it clear what subject matter the claim encompasses to adequately delineate its "metes and bounds". See, e.g., the following decisions: *In re Hammack*, 427 F 2d. 1378, 1382, 166 USPQ 204, 208 (CCPA 1970); *In re Venezia* 530 F 2d. 956,958,189 USPQ 149,151 (CCPA 1976); *In re Goffe*, 526 F 2d. 1393, 1397, 188 USPQ 131, 135 (CCPA 1975); *In re Watson*, 51 7 F 2d. 465,477, 186 USPQ 11, 20 (CCPA 1975); *In re Knowlton* 481 F 2d. 1357, 1366, 178 USPQ 486, 492 (CCPA 1973). The courts have also indicated that before claimed subject matter can properly be compared to the prior art, it is essential to know what the claims do in fact cover. See, e.g., the following decisions: *In re Steele*, 305 F 2d. 859, 134 USPQ 292 (CCPA 1962); *In re Moore* 439 F 2d. 1232, 169 USPQ 236 (CCPA 1969); *In re Merat*, 51 9 F 2d. 1390, 186 USPQ 471 (CCPA 1975).

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining differences between the prior art and claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

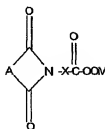
This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Instant Claims 1-9, and 13 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cavallotti et al (EP 0780374) in view of Barnes et al (EP0442549).

Claimed invention is drawn to liquid formulations of imidoalkanepercarboxylic acids in the form of aqueous dispersions comprising surfactants.

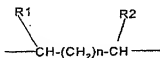
Cavallotti teaches imidoalkanepercarboxylic acids in the beta crystal form as claimed by Applicants' in claim 1, and dependent claims 2-9, and 13 (p.2, lns.42-60; p.3; p.4, lns.1-42): chemical structures shown below (p.2, lns.42-58 to p.4, lns.1-21).

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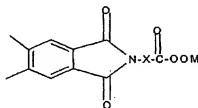
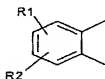


(I)

in which A indicates a group chosen from the following



or



n is an integer 0, 1 or 2,

R' is hydrogen, chlorine, bromine, alkyl C1-C20, alkenyl C2-C20, aryl or alkylaryl,

R2 is hydrogen, chlorine, bromine or a group of formula -S03M, -C02M, -C03M, -OS03M,

M indicates hydrogen, an alkaline metal or ammonium ion or the equivalent of an alkaline-earth metal ion and X indicates alkylene C1-C19 or arylene;

Y is = X and preferably an alkylene C3-C19;

Imidoalkanepercarboxylic acids obtained according to known peroxidation methods in the presence of hydrogen peroxide and of a strong acid at temperatures from 5 to 50°C (p.2, lns.59-60). Specifically, Cavallotti teaches a imidoalkaneperoxydicarboxylic acid is phthalimidoperoxyhexanoic acid (PAP) (p.2, lns.40-41, p.5, line 1). Furthermore, Cavallotti reference discloses that solutions containing the percarboxylic acids subjected to a removal process of the solvent for recovering of the product, wherein residual content of water is in the range of 20% by weight (p.2, lns.15-19). And, in the case of the phthalimidoperoxyhexanoic acid the temperature of formation of the eutectic with water is of about 72°C, while the decomposition temperature of the pure acid is about 92°C. The eutectic has a density at 75°C of 1.229 g/ml, the viscosity at 75°C is 15 centiPoise (p.4, lns.49-52). Stability tests were performed for PAP as illustrated in Table 1, wherein 1.0-2.6% of lost of active (peroxy) oxygen employing water added with sequestering agents, operating with residence times of 1 hour (p.6, lns.11-12). However, Cavallotti does not teach mixing the imidoalkaneperoxydicarboxylic acids with nonionic surfactants. Barnes teaches an aqueous liquid bleaching composition comprising selected organic peroxy acids, where the composition

can be used for the bleaching of fabrics and hard surfaces (p.3, lns.5-6). Moreover, the Barnes reference teaches imidoperoxydicarboxylic acids as an aqueous suspension comprising a surfactant and electrolyte defined at a pH within the 40°C range of 1-6.5, preferably from 2-5, that are not extremely physically and chemically stable (p.4, lns.38-44).

Regarding claim 4, Barnes teaches the particle size of the peroxy acids are from about 10 to 1,000 microns, preferably between 20 and 500 microns, optimally between 30 and 250 microns (p.5, lns.23-26). The claimed ranges having average dimensions of less than 30 microns fall within the ranges as taught by Barnes. Thus, one skilled in the art at the time of the invention could provide crystals of β -crystal form having average dimension of less than 30 microns with a reasonably amount of expectation of success according to the guidance provided by the Barnes reference. **Applicants' have combined prior art elements according to known methods as taught by EP0442549 (BARNES) to yield predictable results.** In the case where the claimed ranges "overlap or lie inside ranges disclosed by the prior art" a prima facie case of obviousness exists. In re Wertheim, 541 F.2d 257,191 USPQ 90 (CCPA 1976); In re Woodruff, 91 9 F.2d 1575, 16 USPQ2d 1934 (Fed. Cir. 1990). MPEP 2144.05

In particular, Barnes teaches nonionic surfactants are selected from a wide category of materials, such as, fatty acids, fatty alcohols, fatty amides and alkoxyated derivations. Also, within the alkoxyate category, ethylene oxide and/or propylene oxide condensation products of C_8 - C_{20} linear or branched-chain aliphatic carboxylic acids, aliphatic alcohols and alkyl phenols. And, C_{12} - C_{18} aliphatic alcohols ethoxylated with an average from about 3 to about 12 moles of ethylene oxide per alcohol molecule (p.5, lns.30-39). Cationic detergents that can be added to the composition include distearyl dimethyl ammonium chloride, stearyl dimethyl benzyl ammonium chloride, and others (see p.5, lns.50-58).

Regarding claim 2, the formulation according to Claim 1 prepared by grinding **the** crystals of imidoalkanepercarboxylic acids dispersed in an excess of water, in the presence of a nonionic surfactant; and cooling the liquid dispersion to a temperature below 30°C is a product by process claim: such that, determination of patentability is based on imidoalkanepercarboxylic acids itself. The patentability of a product-by-process claim is determined based on the structure imparted to the product by the process steps. When no evidence to support or reason to believe that a patentably distinct structure is

imparted by the process steps, the burden of proving otherwise falls to the applicant (See MPEP § 2113).

Applicants' have combined prior art elements according to known methods to yield predictable results.

Accordingly, the claimed invention of instant claims 1-9, and 13, was prima facie obvious to one skilled in the art at the time of the invention was made especially in the absence of evidence to the contrary.

Double Patenting

6. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. A nonstatutory obviousness-type double patenting rejection is appropriate where the conflicting claims are not identical, but at least one examined application claim is not patentably distinct from the reference claim(s) because the examined application claim is either anticipated by, or would have been obvious over, the reference claim(s). See, e.g., *In re Berg*, 140 F.3d 1428, 46 USPQ2d 1226 (Fed. Cir. 1998); *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) or 1.321(d) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent either is shown to be commonly owned with this application, or claims an invention made as a result of activities undertaken within the scope of a joint research agreement.

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-9 and 13 are rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1 and 2 of USP No. 7468387. Although the conflicting claims are not identical, they are not patentably distinct from each other because each are explicitly drawn to the idoalkanepercarboxylic acids. Instant application is directed to liquid formulations comprising imidoalkanepercarboxylic acids, whereas USP No. 7468387 is directed to the idoalkanepercarboxylic acids, wherein both instant application and USP No. 7468387 idoalkanepercarboxylic acids are of the beta crystal form.

Claims 1-9, and 13 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1, 2, 7-11, 19 and 20 of copending Application No. 12039797. Although the conflicting claims are not identical, they are not patentably distinct from each other because each are explicitly drawn to the beta crystal form of imidoalkanepercarboxylic acids. Instant application is directed to liquid formulations comprising imidoalkanepercarboxylic acids, whereas copending Application No. 12039797 is directed to

a bleach or a disinfectant. However, imidoalkanepercarboxylic acids are the products of both instant application and copending application, and both are disinfectants.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Applicant's attention is directed to 37 CFR § 1.56: 37 CFR § 1.56 - Duty to disclose information material to patentability. (a) A patent by its very nature is affected with a public interest. The public interest is best served, and the most effective patent examination occurs when, at the time an application is being examined, the Office is aware of and evaluates the teachings of all information material to patentability. Each individual associated with the filing and prosecution of a patent application has a duty of candor and good faith in dealing with the Office, which includes a duty to disclose to the Office all information known to that individual to be material to patentability as defined in this section. The duty to disclose information exists with respect to each pending claim until the claim is cancelled or withdrawn from consideration, or the application becomes abandoned. Information material to the patentability of a claim that is cancelled or withdrawn from consideration need not be submitted if the information is not material to the patentability of any claim remaining under consideration in the application. There is no duty to submit information which is not material to the patentability of any existing claim. The duty to disclose all information known to be material to patentability is deemed to be satisfied if all information known to be material to patentability of any claim issued in a patent was cited by the Office or submitted to the Office in the manner prescribed by § 1.97(b) - (d) and 1.98. However, no patent will be granted on an application in connection with which fraud on the Office was practiced or attempted or the duty of disclosure was violated through bad faith or intentional misconduct. The Office encourages applicants to carefully examine:

(1) prior art cited in search reports of a foreign patent office in a counterpart application, and

(2) the closest information over which individuals associated with the filing or prosecution of a patent application believe any pending claim patentably defines, to make sure that any material information contained therein is disclosed to the Office.

(b) Under this section, information is material to patentability when it is not cumulative to information already of record or being made of record in the application, and

(1) It establishes, by itself or in combination with other information, a prima facie case of unpatentability of a claim; or

(2) It refutes, or is inconsistent with, a position the applicant takes in:

(i) Opposing an argument of unpatentability relied on by the Office, or

(ii) Asserting an argument of patentability.

A prima facie case of unpatentability is established when the information compels a conclusion that a claim is unpatentable under the preponderance of evidence, burden - of - proof standard, giving each term in the claim its broadest reasonable construction consistent with the specification, and before any consideration is given to evidence which may be submitted in an attempt to establish a contrary conclusion of patentability. (c) Individuals associated with the filing or prosecution of a patent application within the meaning of this section are:

(1) Each inventor named in the application;

(2) Each attorney or agent who prepares or prosecutes the application; and

(3) Every other person who is substantively involved in the preparation or prosecution of the application and who is associated with the inventor, with the assignee or with anyone to whom there is an obligation to assign the application.

(d) Individuals other than the attorney, agent or inventor may comply with this section by disclosing information to the attorney, agent, or inventor.

[42 FR 5593, Jan. 28, 1977; paras. (d) & (e) - (i), 47 FR 21 751, May 19, 1982, effective July 1, 1982; para. (c), 48 FR 271 0, Jan. 20, 1983, effective Feb. 27, 1983; paras. (b) and (j), 49 FR 554, Jan. 4, 1984, effective Apr. 1, 1984; paras. (d)

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and (h), 50 FR 5171, Feb. 6, 1985, effective Mar. 8, 1985; para. (e), 53 FR 47808, Nov. 28, 1988, effective Jan. 1, 1989; 57 FR 2021, Jan. 17, 1992, effective Mar. 16, 1992}

Conclusions

All claims are rejected.

7. Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Thurman Wheeler whose telephone number is (571)270-1307. The examiner can normally be reached on Monday-Thursday, 7:30 am to 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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/YVONNE L. EYLER/

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Supervisory Patent Examiner, Art Unit 1619